



10-25 02 420986 10/23/02

PROVISIONAL APPLICATION COVER SHEET [37 CFR 1.53(c)]

This is a request for filing a PROVISIONAL APPLICATION under 35 U.S.C. §111(b) and 37 CFR 1.51(a)(2)

Date : October 23, 2002
Docket No. : 49270/CM/R586
EXPRESS MAIL NO. EL904746614US



Mail to: **BOX PROVISIONAL PATENT APPLICATION**

INVENTOR(S)/APPLICANT(S) (LAST NAME, FIRST NAME, MIDDLE INITIAL, RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY))

LINES, Thomas C., 13 rue Des Champs, L 5762 Hassel, Luxembourg Grand Duchy, Europe

Additional inventors are being named on separately numbered sheets attached hereto.

TITLE OF THE INVENTION (280 characters max)

ANTIOXIDANT COMPOUND

ENCLOSED APPLICATION PARTS

4 Specification (number of pages)
0 Drawings (number of sheets)
Assignment
Other (specify):

FEE AND METHOD OF PAYMENT

☒ A check for the filing fee of \$160.00 is enclosed.
The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by this filing to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account. **A copy of this letter is enclosed.**
☐ No filing fee enclosed.

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No ☐ Yes, the name of the U.S. Government agency and the Government contract number are:

Please address all correspondence to **CHRISTIE, PARKER & HALE, LLP, P.O. Box 7068, Pasadena, CA 91109-7068, U.S.A.**

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Constantine Marantidis
Reg. No. 39,759
626/795-9900



49270/CM/R566

ANTIOXIDANT COMPOUND

An antioxidant compound also known as an FRS Free Radical Scavenger compound is provided.

A FRS compound is an antioxidant health compound which relies on synergies between the Bioflavonoid Quercetin and Vitamins B1,B2,B3,B6 and B12 as well as Vitamin C, Vitamin E and Caffeine and Epigallocatechin Gallate, (which is part of a concentrated Green Tea Extract which includes Epicatechin, Epicatechin Gallate and Epigallocatechin as well as Polyphenon E) in order to deliver a potent antioxidant effect in animals and humans. The Quercetin in the compound can be either naturally extracted from plants and/or vegetables and/or fruits by well known methods or can be synthesised by well known methods.

The inventive compound has a very bitter and unpalatable taste and needs to be sweetened prior to or during the process of being added to foodstuffs and/or drinks. The sweetener can be HFCS (high fructose corn syrup) and/or natural cane or beet sugars and/or pectins and/or the artificial sweetener sucralose.

The inventive compound is in an exemplary embodiment in liquid form but may also be in solid form such as a powder form. The exemplary embodiment compound can be mixed with various fruit juices and/or purified water and/or other consumable liquid products such as teas and/or sodas and can be added to foodstuffs and various drinks as a component in the manufacturing process.

The exemplary embodiment compound is a dispersion which when added to consumable liquids is not totally soluble. It is not totally soluble in water.

The exemplary embodiment compound has the following component ranges per liter of liquid as finished ready to drink product for human consumption (mg = milligrams, iu = international units)

| Component | minimum | maximum |
|-------------|--------------|----------------|
| Quercetin | 50 mg | 1000 mg |
| Vitamin B1 | 0,10 mg | 30 mg |
| Vitamin B2 | 0,10 mg | 85 mg |
| Vitamin B3 | 0,10 mg | 1000 mg |
| Vitamin B6 | 0,10 mg | 100 mg |
| Vitamin B12 | 6 micrograms | 120 micrograms |
| Vitamin C | 60 mg | 1200 mg |
| Vitamin E | 3 iu | 1000 iu |
| Caffeine | 50 mg | 1000 mg |

All above are mixed together with

49270/CM/R566

Green Tea Extract containing

| | |
|--------------------------|------------------------------|
| Epigallocatechin Gallate | minimum 10 mg maximum 500 mg |
| Epicatechin | minimum 10 mg maximum 500 mg |
| Epicatechin Gallate | minimum 10 mg maximum 500 mg |
| Epigallocatechin | minimum 10 mg maximum 500 mg |
| Polyphenon E | minimum 10 mg maximum 500 mg |

Another exemplary embodiment compound has the following formulation:

| | |
|-------------|---------------|
| Quercetin | 50 mg |
| Vitamin B1 | 3,75 mg |
| Vitamin B2 | 4,25 mg |
| Vitamin B3 | 50 mg |
| Vitamin B6 | 5 mg |
| Vitamin B12 | 15 micrograms |
| Vitamin C | 150 mg |
| Vitamin E | 7,5 iu |
| Caffeine | 200 mg |

All above are mixed together with

Green Tea Extract containing

| | |
|--------------------------|-------|
| Epigallocatechin Gallate | 30 mg |
| Epicatechin | 35 mg |
| Epicatechin Gallate | 90 mg |
| Epigallocatechin | 90 mg |
| Polyphenon E | 30mg |

Through testing including testing in humans and animals, Applicant has discovered the following benefits provided by the exemplary embodiment compound as follows:

- Applicant has discovered that the exemplary compound stimulates metabolism in animals and humans by exploiting the synergies between the caffeine and B-Vitamin components of the compound.
- Applicant has discovered that the exemplary compound stimulates blood flow by the interaction between the caffeine and Quercetin components. In addition, applicant has discovered that the exemplary compound thins the blood and can possibly act as a reducer of incidents of DVT (Deep Vein Thrombosis) which often occurs in humans on long haul flights and during prolonged periods of seating.

49270/CM/R566

3. Applicant has discovered that the exemplary compound uses the interaction between vitamins C and E and Quercetin in order to scavenge (i.e., eat) free radicals (i.e., free running oxygen molecules) in animals and humans and to bond with Oxygen free radicals in the body so as to neutralize the Oxygen free radicals to prevent and/or reduce free radical damage and the consequent onset of free radical related diseases such as cancer, heart disease and diabetes.
4. Quercetin helps to conserve and lengthen the effects of vitamins C and E in the body and together with the B-Vitamins, Caffeine and Epigallocatechin Gallate helps to accelerate metabolism so allowing the body to burn fat at a faster rate.
5. Quercetin improves capillary permeability and acts together with Vitamin C and E to strengthen capillary cells.
6. Applicant has discovered that the exemplary compound contributes to increased alertness and memory amplification in animals and humans which applicant believes occurs through the synergy of its components.
7. Applicant has discovered that the exemplary embodiment compound can assist in collagen formation, is an antihistamine, is an anti-inflammatory agent, exhibits strong antioxidant action, can assist in protecting against cataracts, exhibits anti ulcer and gastroprotective effects.
8. Applicant has also discovered that the exemplary embodiment compound promotes the elevation of norepinephrine levels consequently increasing energy expenditure and thermogenesis which can assist in weight control. This is especially true when the compound is artificially sweetened and used as a component of drinks which contain no added sugar.
9. Furthermore, applicant has discovered that the exemplary embodiment compound exhibits both allergic mediator release activity and selectively inhibits the biosynthesis of proinflammatory arachidonic acid metabolites and thus has implications as an anti inflammatory and antiallergic agent.

49270/CM/R566

10. The exemplary embodiment compound has been shown in informal human trials to elevate mood.

5 11. Applicant has discovered that the exemplary embodiment compound helps the bowel function in animals and humans.

12. Applicant believes that the exemplary embodiment compound has anti cancer properties.

10 13. Furthermore, applicant believes that the exemplary embodiment, has properties that prevent platelet aggregation, protect against blood clotting and together with strong antioxidant action can protect the heart from damage and promote cardiovascular health.

468810.1